

***Platynota rostrana* (Walker) (Lep.: Tortricidae) and *Pyroderces ? rileyi* (Walsingham) (Lep.: Cosmopterygidae) discovered in a garden centre in Britain in 1987/88**

Following David Agassiz's discovery some years ago of several species of China Mark moths breeding under artificial conditions in aquatic plant nurseries, a friend, Steve MacWilliam, and I have been in the habit of periodically checking garden centres and nurseries on our travels in the hope of emulating his success. This note (delayed because the events described coincided with the shifting of my interest from the Lepidoptera to settling nowadays on the Diptera) very belatedly publishes our discovery in the winter of 1987/88 of two species new to the British list.

***Platynota rostrana* (Walker)**

In late December 1987 SM visited Stapeley Water Gardens, Cheshire where he spotted an unfamiliar moth flying in the Palm House and collected a pupa from which a further specimen shortly emerged. He was fairly sure it was an exotic, but being at that time relatively unfamiliar with the microlepidoptera and because of the prominent snout-like palpi, he thought it probably belonged to the Pyralidae. I inspected the specimen and concluded it was the male of a tortricid new to Britain. We returned to the garden centre in early January 1988, and with the permission of the manager collected as many larvae as we could cope with. The staff were more than happy for us to do this as they had a severe infestation which was proving difficult to manage without the risk of insecticidal spray damage to other wildlife in the environment.

Discussion with the manager revealed that the Palm House had been stocked with plants from Maryland in Florida, thus providing a strong clue to the likely provenance of the new tortricid. The larvae turned out to be a mixture of two species, the new tortrix and *Cacoecimorpha pronubana* Hübner, which from our collective investigations appears to be widespread and common in garden centres throughout the country nowadays. These two species seemed to occur in roughly equal numbers, although, unlike *pronubana* which also occurred freely in the temperate glass houses, the new tortrix was restricted to the higher temperature and more humid climate of the Palm House. It was found in all stages breeding there in profusion, with ova and larvae on an extremely wide range of plants from *Pelargonium* species and other soft-leaved herbaceous plants from many families through to very tough-leaved palms. Given the time of year, I was concerned by the limited range of foodplants I could readily provide. I need not have worried however as the larvae fed readily on almost every pabulum offered to them from various cultivated house-plants to anything still green from the garden or hedgerows – even including nibbling at a Christmas Cactus, though shunning *Rhododendron*.

The species is superficially somewhat variable both in hue and the strength of the pattern and strongly sexually dimorphic, so much so that we originally thought two species were involved, until I noticed that all the males were of a similar basic pattern, and likewise the females were all of a rather plainer design and generally

somewhat smaller. The growing suspicion that it was a single sexually dimorphic species was eventually confirmed when pairs were noticed *in copula*.

Our attempts at identification were hampered by lack of knowledge of appropriate literature. However the genus was eventually tentatively established by SM as *Platynota* on a chance dip into a popular book on American moths in Foyles' bookshop. We could however get no further, lacking any relevant keys or access to comparative material. I dissected the genitalia of both sexes and some months later arranged to take sample specimens to Mr Kevin Tuck at the Natural History Museum for his opinion. He immediately confirmed the genus and after comparison with the Museum's collection we concluded that the species was most likely either *Platynota rostrana* (Walker) or possibly *P. flavedana* Clemens – though some of my specimens were noticeably larger than any in the Museum collection, obviously they had thrived on their unaccustomed diet! Because of the complexity of this genus Mr Tuck kindly contacted Dr J.F. Gates Clarke of the National Museum of Natural History, Smithsonian Institution, Washington DC for his specialist opinion.

Dr Clarke replied on 19 July 1989; I quote his letter in full. He affirmed that “The *Platynota* sp. that you sent for identification appears to be *Platynota rostrana* (Walker). I have examined a large number of slides of both sexes. The female is identical to those we have of *rostrana*. Since the males of *rostrana* and *flavedana* Clemens are so similar, and both vary, I base my determination on the consistency of the females. The variation in the male genitalia occurs mostly in the transtilla. We have a long series of our North American species, but they give us considerable trouble because of the variability. The usually easily identified *idaeusalis* (Walker) has a sister species from Arkansas (undescribed), the males of which are superficially indistinguishable from *idaeusalis*.”

Specimens of *P. rostrana* have been deposited at the Natural History Museum and at Liverpool Museum. Further specimens have also been donated to Mr E.F. Hancock for its conclusion in the forthcoming Tortricidae volume of the *Moths and Butterflies of Great Britain and Ireland*.

A long series was reared through successive generations from the early stages collected at Stapeley, but unfortunately when we returned in late 1989 to try to obtain some larvae for the Natural History Museum collection (our breeding stock having eventually died out while we were on holiday), we found that a new regime of insecticide and severe pruning had apparently eradicated the “pest” completely, and alas we had lacked the foresight to retain any preserved specimens of the original larvae.

### ***Pyroderces ? rileyi* (Walsingham)**

A second species new to Britain was discovered at the same time. The larvae of *rostrana* often varied in colour somewhat according to what they had been eating – those found feeding on strongly blue flowers were particularly affected. However amongst them I noticed a single, very different strongly pink larva feeding in a brown and decaying leaf. This eventually emerged as a rather pretty cosmopterygid with black, white and silvery markings on pale brown wings. This specimen was

exhibited live at a meeting of the Lancashire and Cheshire Entomological Society, as also were specimens of *P. rostrana*, though at the time the identity of both was unknown. SM also subsequently reared two specimens from larvae which had gone unnoticed presumably enfolded in some moribund leaves. On the basis of presumed correlation with the origin of the exotic plants from Florida, I determined this second species on superficial characters to be *Pyroderces rileyi* (Walsingham) using the key in the appropriate fascicle of *The Moths of America North of Mexico*.

The specimen was left at the Natural History Museum for the subsequent attention of Dr Miriam Pitkin who later returned it agreeing that it "may be that species, or more probably *P. hemizopha* Meyr. (from East Africa and India)." However, this statement was most probably made in ignorance of the provenance of the botanical specimens on which it was feeding which is not consistent with the range of the latter species, and Dr Pitkin's diagnosis, like mine, was based on superficial characters only. I am therefore inclined to stand by my original tentative determination, though stress that this is on the basis of the description of the larva and the key to superficial characters of the adults in the above publication and on the assumption from the circumstantial evidence that it is indeed an American species. Having no key to world species of this genus, I have not examined the genitalia and am unable to confirm the determination by these means.— L.W. HARDWICK, 4 Caister Way, Over, Winsford, Cheshire CW7 1LT.

### **Length of pupal stage in *Xanthia citrago* Linn. (Lep.: Noctuidae)**

In Heath and Emmet (eds.) 1983, *MBGBI* vol. 10, the Orange Sallow *Xanthia citrago* is stated to spend only about two weeks as a pupa. This seems an unrealistically short time for such a moth, so when breeding the species *ab ovis* in 1997 from a locally caught female, I made a point of checking the length of the pupal stage.

The larvae spun cocoons on or just below the surface of peat. Like others in the group, they lie dormant for six to eight weeks before pupating. Towards the end of this period, three of the cocoons were picked up every few days, and shaken gently. It was obvious from the rattle when the larva had pupated. The cocoon was then opened to confirm this.

Kept at normal room temperature, the pupae developed slowly and gradually. Moths emerged after minima of 42, 43 and 44 days respectively – six weeks rather than two.

Incidentally, when rearing this species from overwintered eggs, it is vital to prevent these hatching too early. The small larvae need young lime *Tilia* leaves from naturally bursting buds, and seem unable to survive for more than a few days on the leaf scales exposed when buds are peeled open by hand, even if they can be persuaded to eat them all.— ROY LEVERTON, Whitewells, Ordiquhill, Cornhill, Banffshire AB45 2HS.